

## DATA VISUALIZATION Using TABLEAU

Hi, so today I'm given a dataset about the car selling price and I want to analyze using the visualization ones. Data visualization is the process of representing data in a visual and graphical format to gain insights, identify patterns, and communicate information effectively. It involves creating visual representations such as charts, graphs, maps, and dashboards that make complex data more accessible and understandable to users. To make the data visualization, I'm using the Tableau Public Software.

You can check the datasets with the link below:

<https://www.kaggle.com/datasets/smritisinh1997/car-salescsv>

Here are some several questions that I get:

1. Is there any increase for the car price on a period after the 2000s?
2. What car model is having the most expensive price?
3. Is there any fuel type that can increase the average of selling price?

Now let's get jump into it!

Here is the view after I insert the .csv file into the Tableau Software.

Tableau Public - Car Selling data

FileDataWindowHelp

104. Real-life example  
Table

Files

Use Data Interpreter  
Data interpreter might be able to  
clean your Text file workbook.

104. Real-life example.csv

New Union

New Table Extension

Sales\_Car

104. Real-life example.csv

Need more data?  
Drag tables here to relate them. Learn more

104. Real-life example.csv 9 Fields 4345 rows

Name	104. Real-life example.csv
104. Real-life example.csv	

Fields

Type	Field Name	Physical Table	Rem...
Abc	Body	104. Real-life example.csv	Body
+	Mileage	104. Real-life example.csv	Mileage
+	Engine V	104. Real-life example.csv	EngineV
Abc	Engine Type	104. Real-life example.csv	Engine...
Abc	Registration	104. Real-life example.csv	Regist...
+	Year	104. Real-life example.csv	
Abc	Model	104. Real-life example.csv	Model

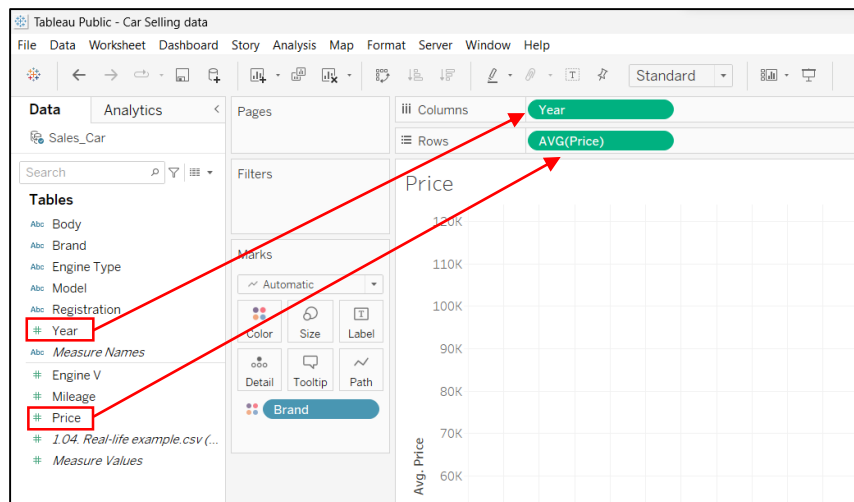
104. Real-life example.csv	104. Real-life example.csv	104. Real-life example.csv	104. Real-life example.csv	104. Real-life example.csv	104. Real-life example.csv
Brand	Price	Body	Mileage	Engine V	Engine Type
BMW	4,200.00	sedan	277	2,00000	Petrol
Mercedes-Benz	7,900.00	van	427	2,90000	Diesel
Mercedes-Benz	13,300.00	sedan	358	5,00000	Gas
Audi	23,000.00	crossover	240	4,20000	Petrol
Toyota	18,300.00	crossover	120	2,00000	Petrol
Mercedes-Benz	399,999.00	crossover	0	5,50000	Petrol
BMW	6,300.00	sedan	438	2,00000	Gas
Audi	14,200.00	wagon	200	2,70000	Diesel
Renault	10,799.00	wagon	393	1,50000	Diesel
Volkswagen	1,400.00	other	212	1,80000	Gas
Renault	11,950.00	wagon	177	1,50000	Diesel

As you can see the Tableau Software has recognized the type of data in each column by itself. But before we start to analyze the dataset let's do some investigation first are the data is cleaned or not. If it's not then we should clean it first. In this case the data are already cleaned and we can start to analyze this. For your reminder this dataset contains the car price in each Brand and Model, not the sales results.

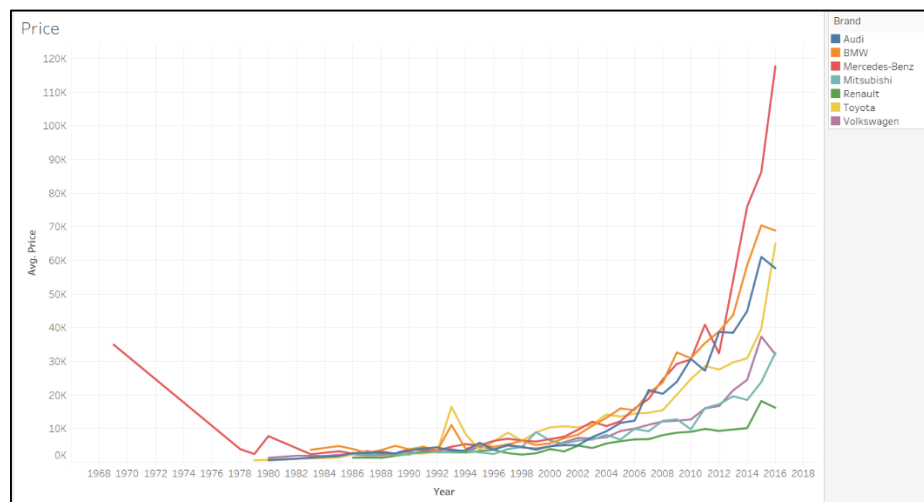
1. Is there any increase for the price car on a period after the 2000s?

First, we select the 'Year' table and we put it into the columns section. Also we select the 'Price' Table and then we put it into the Rows section. After that, we give the measure for the 'Price'

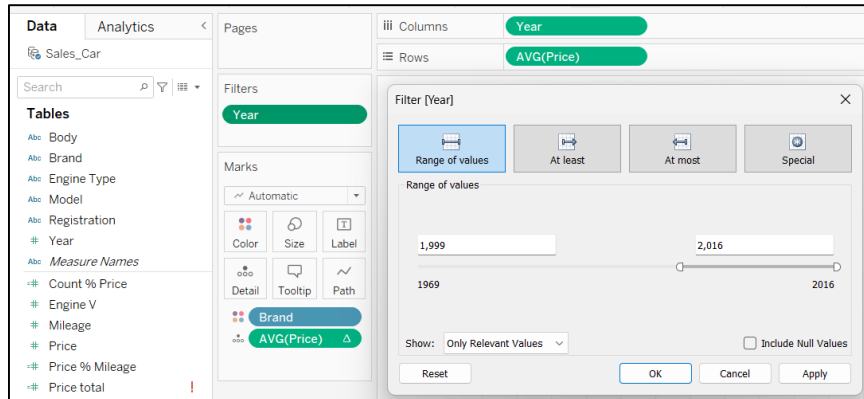
Table in the Average measure. Because default settings in the measure are in SUM measure, it can add all of the value inside the 'Price Table'.



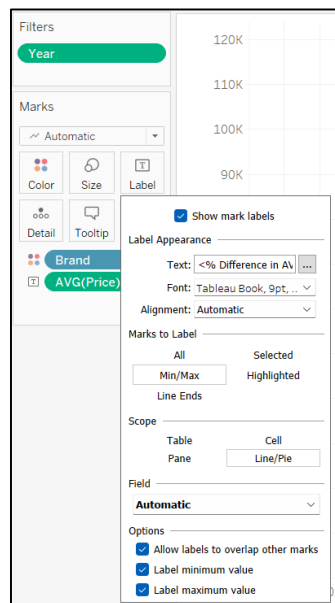
For the 'Marks' section we can separate the result in different color for each brand. So it can help us analyze the data clearly.



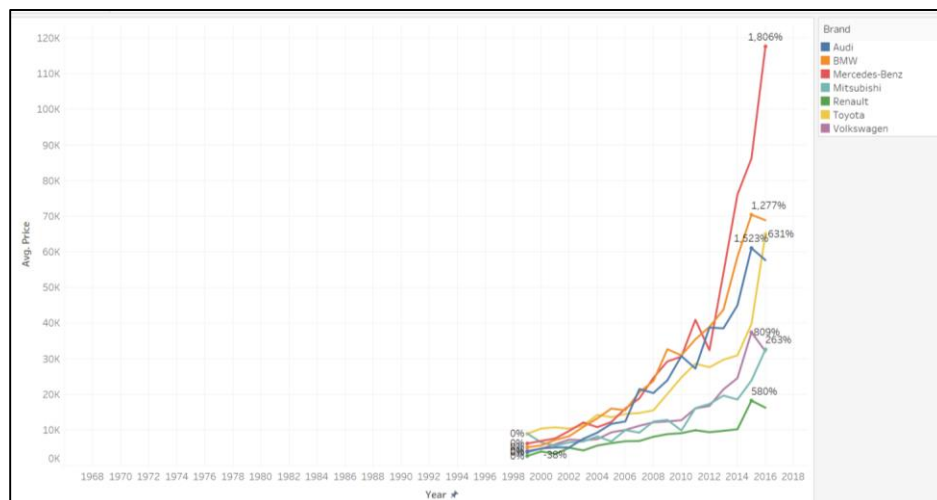
From the result above we can see that after the year 2000 the price for the car in each brand has increase. For a better looking view we can filter the result which can only show the data where the year is greater than 2000.



Insert the AVG(Price) that have been configure in 'Table Calculation' into the Label and we setting with the input below :



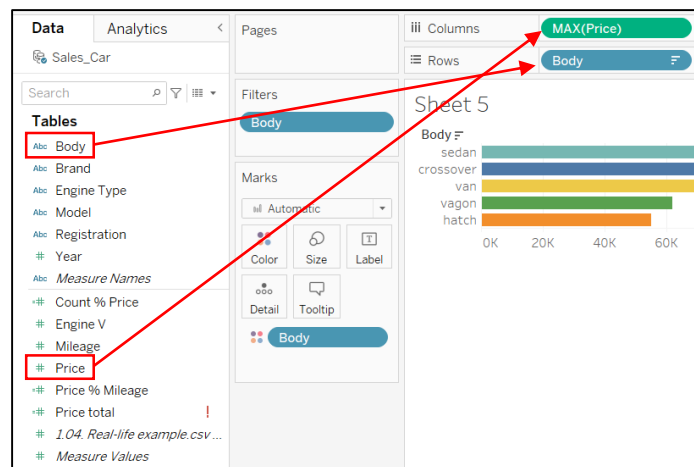
Finally, the result will be like this :



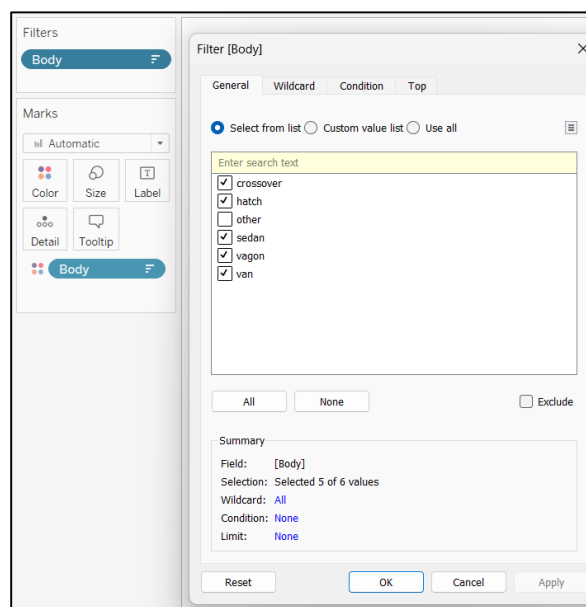
From the result above we can conclude that Mercedes-Benz have the most increase price with 1,806% after the year 2000 followed by Audi with the increase of 1,523%. The least brand that got an increase is the Mitsubishi with only 263%

## 2. What car model is the most expensive?

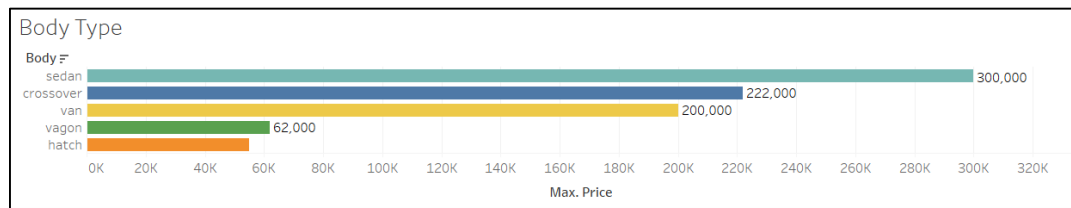
Here we want to find what type of car has the most expensive price. We want to find it by searching in every Brand that got the most expensive price in each type of car then compare the value with the other value in different brand and make the highest value for the result. First, we select the 'Body' Table into the Row section. Second, we select the Price table into the columns section. After that we give the measure for the price table in Maximum value.



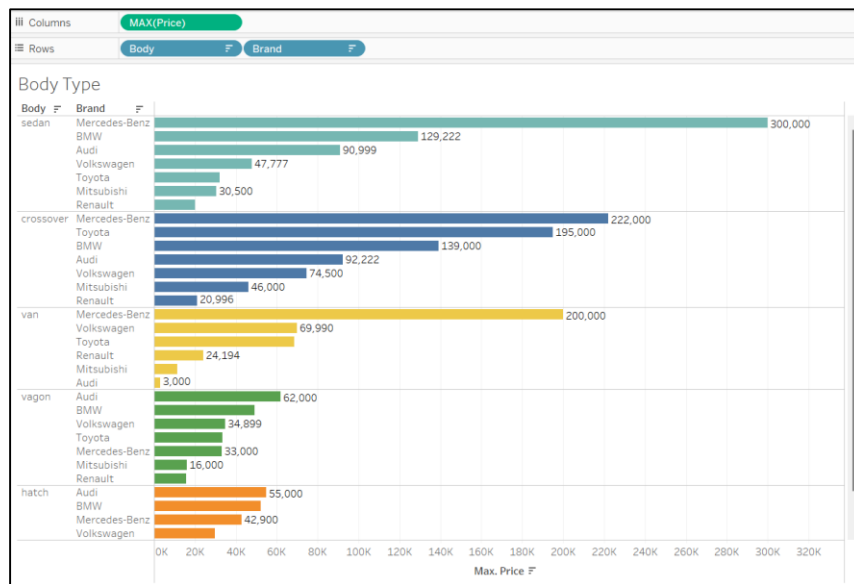
Then we filter the 'Body' Table by exclude the 'other' value so we can get the result we wanted not speculate what the other value is.



Here are the result below :



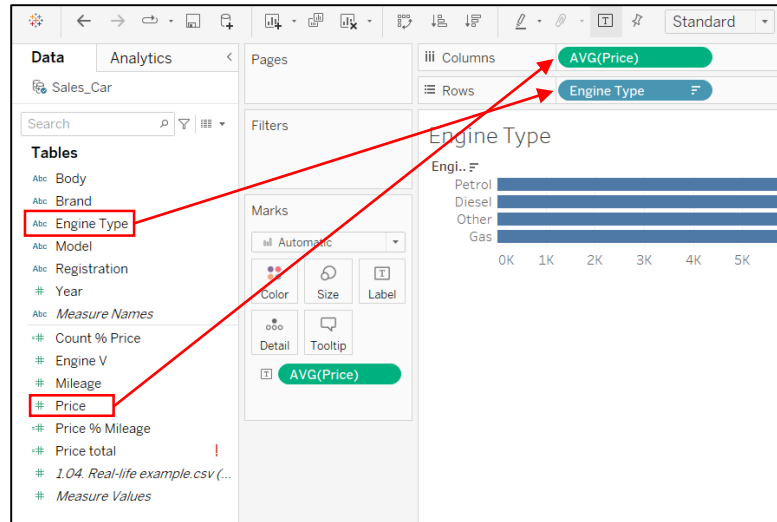
From the result above we can conclude that sedan has the most expensive price with 300,000 USD followed by Crossover with 222,000 USD. The least price for the type of car is the hatch type with only maximum price in 55,000 USD. If we want to know more about the detail which brand is producing the most expensive car in each type we can simply add the 'Brand' table into the Rows section and here are the results :



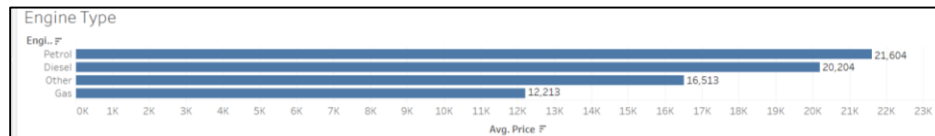
Here, Mercedes-Benz dominate the market price with the most expensive car in 3 type of car which is Sedan, Crossover, and Van. Then, Audi lead the most expensive type of car in vagon and hatch.

- Is there any fuel type that can raise the average of selling price?

In this case we want to know what car fuel is having the most expensive price in the selling price. First, we put the 'Engine Type' table into the Rows section and the 'Price' table into the Columns Section. After that, we select the measure for the Price table with the AVG measure. If we want to have a better analyzes we can put the AVG(Price) table into the Label Marks so it can display the number of the average price in each engine type.



So the result will be like this :



In that result we can conclude that car that using the Petrol fuel is having the most expensive price among the other fuel type with the average price of 21,604 USD. Followed by Diesel with 20,204 USD. The car that has the Gas type of fuel are relatively cheaper than the other car that using the fuel outside of the Gas with only average 12,213 USD.